

In the Claims:

Claim 3 is amended herein. The remaining claims are not amended in this response.

1. (withdrawn) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to the low-temperature side of said pulse tube, a vibration generator connected to the high-temperature side of said cool storage unit, and a reservoir with an orifice connected to the high-temperature side of said pulse tube, wherein said vibration generator is a heat-driven pressure-wave generator comprising a heat-driven tube, a phase shifter that is connected to the outlet port of said heat-driven tube at its one end, and a return path that connects the other end of said phase shifter to the inlet port of said heat-driven tube, wherein said heat-driven tube consists of a heat-storage unit, a heating heat exchanger, a radiation heat exchanger, and a work-transmission tube.

2. (withdrawn) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to the low-temperature side of said pulse tube, a vibration generator connected to the high-temperature side of said cool storage unit, and a reservoir with an orifice connected to the high-temperature side of said pulse tube, wherein said vibration generator is a heat-driven pressure-wave generator comprising a heat-driven tube and a resonator

connected to the low-temperature-side end of said heat-driven tube, wherein said heat-driven tube consists of a heat-storage unit, a heating heat exchanger, a radiation heat exchanger, and a high-temperature buffer.

3. (currently amended) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to a low-temperature side of said pulse tube, a vibration generator connected to a high-temperature side of said cool storage unit, symmetrical phase shifters connected to the high-temperature side of said pulse tube, and a reservoir with an orifice connected to the ~~high-temperature side of said pulse tube~~, symmetrical phase shifters, wherein said vibration generator is a heat-driven pressure-wave generator which operates as an oscillator for generating ~~[[a]]~~ traveling acoustic ~~wave~~ waves by causing self-excited vibration with resonance comprising a heat-driven tube , wherein said heat-driven tube consists of a first radiation heat exchanger at the inlet port, a heat-storage unit connected to the first radiation heat exchanger, a heating heat exchanger connected to the heat-storage unit, ~~and~~ a work-transmission tube connected to the heating heat exchanger and a second radiation heat exchanger connected to the work-transmission tube.

4. (withdrawn) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to the low-temperature side of said pulse tube, a vibration generator connected to the high-

temperature side of said cool storage unit, and a reservoir with an orifice connected to the high-temperature side of said pulse tube, and further comprising a gas-spring resonator disposed between said pulse tube and said orifice.

5. (withdrawn) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to the low-temperature side of said pulse tube, a vibration generator connected to the high-temperature side of said cool storage unit, and a reservoir with an orifice connected to the high-temperature side of said pulse tube, and further comprising a phase shifter disposed between said pulse tube and said orifice.

6. (withdrawn) A pulse-tube refrigerator comprising a pulse tube, a cool storage unit connected to the low-temperature side of said pulse tube, a vibration generator connected to the high-temperature side of said cool storage unit, and a reservoir connected to the high-temperature side of said pulse tube, and further comprising a phase shifter with leakage disposed between said pulse tube and said reservoir.

7. (previously presented) A pulse-tube refrigerator according to claim 3 wherein said symmetry is bilateral symmetry.

8. (previously presented) The pulse-tube refrigerator according to claim 3 wherein each said resonator has a piston and a cylinder.